

09/759,749

IN THE CLAIMS

Please cancel claims 3, 11, 12, 13, 14, 17, 18, 19, 20, 22, 28, 29, 30, 31, 32, 33, 34, 35, 36, 44, 47, 48, and 49.

Please amend claims 4, 23, 40, 41, 42, and 43 as follows.

1. (Previously Amended) Seed of maize inbred line designated PH5TG, representative seed of said line having been deposited under ATCC Accession No. PTA-4526.

2. (Original) A maize plant, or parts thereof, produced by growing the seed of claim 1.

3. (Cancelled)

4. (Currently Amended) A tissue culture of regenerable cells or protoplasts from the plant of claim 2.

5. (Previously Amended) A tissue culture according to claim 4, cells or protoplasts of the tissue culture being from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

6. (Previously Amended) A maize plant regenerated from the tissue culture of claim 4, capable of expressing all the morphological and physiological characteristics of inbred line PH5TG, representative seed of which have been deposited under ATCC Accession No. PTA-4526.

7. (Original) A maize plant produced by crossing the plant of claim 2 with a different inbred parent maize plant and harvesting the resultant first generation (F₁) hybrid maize seed.

8. (Previously Amended) The method of claim 7 wherein said different inbred parent maize plant is the female parent.

9. (Original) An F₁ hybrid seed produced by crossing the inbred maize plant according to claim 2 with another, different maize plant.

10. (Original) An F₁ hybrid plant, or parts thereof, grown from the seed of claim 9.

09/759,749

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Original) A method for developing a maize plant in a maize plant breeding program using plant breeding techniques, which include employing a maize plant, or its parts, as a source of plant breeding material, comprising: obtaining the maize plant, or its parts, of claim 2 as a source of said breeding material.

16. (Previously Amended) The method of claim 15 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Previously Amended) A maize plant, or parts thereof, having all the physiological and morphological characteristics of inbred line PH5TG, representative seed of said line having been deposited under ATCC accession No. PTA-4526.

22. (Cancelled)

plant of claim 21.

24. (Previously Amended) A tissue culture according to claim 23, cells or protoplasts of the tissue culture being from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

25. (Previously Amended) A maize plant regenerated from the tissue culture of claim 23, capable of expressing all the morphological and physiological

09/759,749

characteristics of inbred line PH5TG, representative seed of which have been deposited under ATCC Accession No. PTA-4526.

26. (Original) A method for producing a first generation (F_1) hybrid maize seed comprising crossing the plant of claim 21 with a different inbred parent maize plant and harvesting the resultant first generation (F_1) hybrid maize seed.

27. (Previously Amended) The method of claim 26 wherein said different inbred parent maize plant is the male parent.

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Previously Amended) A process for producing inbred PH5TG, representative seed of which have been deposited under ATCC Accession No. PTA-4526, comprising:

(a) planting a collection of seed comprising seed of a hybrid, one of whose parents is inbred PH5TG said collection also comprising seed of said inbred;

(b) identifying said inbred PH5TG plants;

(c) identifying said inbred PH5TG plants;

(d) selecting said inbred PH5TG plant; and

(e) controlling pollination in a manner which preserves the homozygosity of said inbred PH5TG plant.

38. (Original) The process of claim 37 wherein step (c) comprises identifying plants with decreased vigor.

39. (Original) The process of claim 37 wherein step (c) comprises identifying seeds or plants with homozygous genotype.

09/759,749

40. (Currently Amended) A method for producing a first generation F1 PH5TG-derived maize plant, comprising:

(a) crossing inbred maize line PH5TG, representative seed of said line having been deposited under ATCC Accession No. PTA-4526, with a second maize plant to yield progeny maize seed;

(b) growing said progeny maize seed, under plant growth conditions, to yield said first generation F1 PH5TG-derived maize plant.

41. (Currently Amended) [A] The first generation F1 PH5TG-derived maize plant, or parts thereof, produced by the method of claim 40.

42. (Currently Amended) The method of claim 40, further comprising:

(c) selfing or sibbing said PH5TG-derived maize plant [with itself or another maize plant] to yield additional PH5TG-derived progeny maize seed;

(d) growing said progeny maize seed of step (c) under plant growth conditions, to yield additional PH5TG-derived maize plants;

(e) [repeating the selfing and growing steps of (c) and (d)] repeatedly selfing said additional PH5TG-derived maize plants for successive filial generations to generate a further PH5TG-derived maize plant[s].

43. (Currently Amended) The further PH5TG-derived maize plant[s], or ~~the further PH5TG-derived maize plant[s]~~ produced by the method of claim 42 wherein said further PH5TG-

derived maize plant[s] are

PH5TG.

44. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

Please add new claims 50-57 as written

09/759,749

50. (New) A method of developing a backcross conversion PH5TG maize plant wherein an inbred maize plant PH5TG is crossed to a second maize plant, wherein a trait is backcrossed into said inbred maize plant PH5TG, and wherein said inbred maize plant PH5TG is a recurrent parent.

51. (New) The backcross conversion PH5TG maize plant of claim 50 wherein the trait backcrossed into said inbred maize plant PH5TG confers a trait from a group consisting of herbicide resistance, insect resistance, disease resistance, male sterility, and waxy starch; and wherein inbred maize plant PH5TG has been used as a recurrent parent at least two times.

52. (New) A method of developing a first generation hybrid maize plant comprising crossing the backcross conversion PH5TG maize plant of claim 51 with a second maize plant.

53. (New) The first generation hybrid maize plant developed by the method of claim 52.

54. (New) A method of developing a transgenic PH5TG maize plant wherein inbred maize plant PH5TG is transformed with a transgene.

55. (New) The transgenic PH5TG maize plant of claim 54 wherein said transgene confers a trait from the group consisting of insect resistance, herbicide resistance, disease resistance, and male sterility.

56. (New) A method of developing a first generation hybrid plant comprising crossing the transgenic PH5TG maize plant of claim 55 to a second maize plant.

claim 56.